A Seismic History of Crete: Earthquakes and Tsunamis, 2000 BC â€“ 2011 AD brings an update of the earthquake, tsunamis and volcanic eruptions that took place in the Hellenic Arc and Trench around Crete Isl. from the Minoan times up to our days. Starting from about 2000 BC, 191 earthquake events occurring in the pre-historical, the historical and the primitive instrumental period are critically examined with the support of field geological and archaeological observations and of documentary sources in original language and in English translation. The book starts with a review of the geodynamics and seismicity of the Hellenic Arc and Trench system and concludes with an exhaustive reference list. Discover the world's research. 17+ million members. An earthquake (also known as a quake, tremor or temblor) is the shaking of the surface of the Earth resulting from a sudden release of energy in the Earth's lithosphere that creates seismic waves. Earthquakes can range in size from those that are so weak that they cannot be felt to those violent enough to propel objects and people into the air, and wreak destruction across entire cities. The seismicity, or seismic activity, of an area is the frequency, type, and size of earthquakes experienced over a Most tsunamis are generated by shallow, great earthquakes at subduction zones. More than 80% of the world's tsunamis occur in the Pacific along its Ring of Fire subduction zones. When a great earthquake ruptures, the faulting can cause vertical slip that is large enough to disturb the overlying ocean, thus generating a tsunami that will travel outwards in all directions. Quick Links. Current Warnings Most Recent Tsunami Report a Tsunami. Tsunami Sources, Significant Earthquakes and Significant Volcanic Eruptions. Also Tsunami Sources Icosohedron Globe. Tsunami, The Great Waves. Available in English, Spanish, French and Chinese. Tsunami Glossary 2019. Available in English, Arabic, Spanish, French and Bahasa. Tsunami, also known as seismic sea waves (mistakenly called â€œtidal wavesâ€€), are a series of enormous waves created by an underwater disturbance such as an earthquake, landslide, volcanic eruption, or meteorite. A tsunami can move hundreds of miles per hour in the open ocean and smash into land with waves as high as 100 feet or more. Tsunami is a Japanese word with the English translation: "harbour wave". Earthquake-induced movement of the ocean floor most often generates tsunamis. If a major earthquake or landslide occurs close to shore, the first wave in a series could reach the beach in a few minutes, even before a warning is issued. Areas are at greater risk if they are less than 25 feet above sea level and within a mile of the shoreline. Earthquakes can also trigger tsunamis by unleashing underwater landslides, which also displace huge amounts of seawater. In this photo taken by a tourist Eric Skitzi from England, tourists watch as tsunami waves hit the shore from a safe place inside Casuarina Beach Hotel resort in Penang, northwestern Malaysia around 1:00pm in local time (0500GMT) Sunday, Dec. Instead, they rely on a tool known as a seismograph, which measures seismic waves, or vibrations, from an earthquake. An earthquake's magnitude is ranked on the moment magnitude scale, not the Richter scale. The moment magnitude scale provides a better idea of the shaking and possible damage from earthquakes of all kinds around the world. [Related: Whatever Happened to the Richter Scale?]